



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,870	12/21/2005	Yoshitoshi Kida	SON-3055	1396
23353 7590 10/20/2008 RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036				
EXAMINER				
PIZIALI, JEFFREY J				
ART UNIT		PAPER NUMBER		
2629				
MAIL DATE		DELIVERY MODE		
10/20/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/561,870

Applicant(s)

KIDA ET AL.

Examiner

Jeff Piziali

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 12/21/05 & 2/25/08
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of ***Invention/Group I (claim 1)*** in the reply filed on 13 June 2008 is acknowledged.

The traversal is on the grounds (see Page 3 of the Election filed on 13 June 2008):

1. *"In the present case, even assuming for the sake of argument that the claimed subject matter may be classified in different classes, Applicant is not satisfied that the Examiner has made the requisite case under PCT Rule 13.2."*

2. *"Moreover, since there would be no burden in examining both claims, Applicant submits that the requirement would be unwarranted even if the first requirement were properly shown."*

3. *"Applicant does not accept the logic presented on page 2 of the Action regarding the fact that 'Y' references may be contained in the International Search Report."*

4. *"Applicant requests citation to authority for the conclusion that this mandates that the claims cannot share a common technical feature."*

5. *"In any event, the claims do share a common technical feature, as it is clear that the features of claim 1 are largely repeated in claim 2."*

This is not found persuasive:

1. ***Group I, claim 1***, is drawn to a ***data transfer circuit***, classified in ***class 327, subclass 185*** (particular stable state circuitry for miscellaneous active electrical devices).

Group II, claim 2, is drawn to a *flat display apparatus*, classified in *class 345, subclass 98* (*specific means -- e.g., latches, memories, or logic, etc. -- for controlling the state of display elements*).

The Applicant does not dispute (in the Response filed on 13 June 2008) the different classifications of the inventions.

2. Inventions II and I are related respectively as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations.

In the instant case, the "*flat display apparatus*" combination as claimed (in claim 2) does not require particulars such as: "*a data transfer circuit for latching an input data in a first latch section, transferring data of a latch result of said first latch section to a second latch section, and latching therein*," as recited in the subcombination (in claim 1, lines 1-3).

The "*data transfer circuit*" subcombination (in claim 1) has separate utility such transferring data for circuitry other than: "*a flat display apparatus that sequentially inputs gradation data indicative of brightness of each pixel and displays an image based on said gradation data in a predetermined display section*," as recited in the combination (in claim 2, lines 1-3).

The Applicant does not dispute (in the Response filed on 13 June 2008) the presence of distinct combination and subcombination inventions.

Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

- (a) the inventions have acquired a separate status in the art in view of their different classification;
- (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;
- (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);
- (d) the prior art applicable to one invention would not likely be applicable to another invention;
- (e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

The Applicant (in the Response filed on 13 June 2008) makes no attempt to explain or support the Applicant's general allegation, "*there would be no burden in examining both claims.*"

3. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Any international application must relate to one invention only or to a group of inventions so linked as to form a single general inventive concept (see MPEP 1850).

As demonstrated by the “Y” references on the International Search Report, at least one independent claim of the application does not avoid the prior art, therefore, the special technical feature of the application is anticipated by or obvious in view of the prior art.

Consequently, the inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1.

The Applicant alleges (in the Response filed on 13 June 2008), “Y” references may be contained in the International Search Report.”

The examiner respectfully responds, “Y” references clearly and indisputably are (not “may be”) contained in the International Search Report.

4. “Applicant requests citation to authority for the conclusion that this mandates that the claims cannot share a common technical feature.”

The examiner respectfully responds that the restriction requirement (mailed 13 May 2008) does not anywhere include the term, “a common technical feature.”

If the Applicant wishes to pursue a deeper understanding the role of “special technical features,” unity of invention, and restriction requirements; the examiner recommends perusing PCT Rules 13.1, 13.2, and MPEP 1850.

The Applicant does not dispute (in the Response filed on 13 June 2008) that the claimed inventions lack the same or corresponding “special technical features.”

5. As alleged by the Applicant: “In any event, the claims do share a common technical feature, as it is clear that the features of claim 1 are largely repeated in claim 2.”

As already explained by the examiner above (in Point 3): The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Any international application must relate to one invention only or to a group of inventions so linked as to form a single general inventive concept (see MPEP 1850).

As demonstrated by the “Y” references on the International Search Report, at least one independent claim of the application does not avoid the prior art, therefore, the special technical feature of the application is anticipated by or obvious in view of the prior art.

Moreover, as already explained by the examiner above (in Point 2): The “flat display apparatus” combination as claimed (in claim 2) does not require particulars such as: “*a data transfer circuit for latching an input data in a first latch section, transferring data of a latch result of said first latch section to a second latch section, and latching therein,*” as recited in the subcombination (in claim 1, lines 1-3).

The “data transfer circuit” subcombination (in claim 1) has separate utility such transferring data for circuitry other than: “*a flat display apparatus that sequentially inputs gradation data indicative of brightness of each pixel and displays an image based on said gradation data in a predetermined display section,*” as recited in the combination (in claim 2, lines 1-3).

Again, the Applicant does not dispute (in the Response filed on 13 June 2008) that the claimed inventions lack the same or corresponding “special technical features.”

The requirement is still deemed proper and is therefore made FINAL.

2. ***Claim 2 is withdrawn*** from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 13 June 2008.
3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

5. The IDS (filed 21 December 2005) inaccurately indicates English language translations have been provided for each of the listed foreign patent documents. Only abstract translations have been provided for consideration.

6. The IDS (filed 21 December 2005) fails to positively identify (by International application No., for instance) the listed "International Search Report mailed August 17, 2004."
7. The Applicant neglected to provide a translated copy of the Written Opinion of the International Search Authority, and neglected to provide an English translation of the International Search Report; despite both documents being readily available from the WIPO website.
8. The IDS (filed 25 February 2008) alleges a "Japanese Office Action" has been provided for consideration. A two page Japanese document titled, "2003-192626.txt" has been provided. As the Applicant has again neglected to provide an English language translation, it remains to be seen whether or not said document is in fact a "Japanese Office Action" (nevermind whether or not it includes any subject matter pertinent to the instant application's patentability).
9. The listing of references in the specification (e.g., Page 3, Line 8) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

10. At least Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated (see Page 1, Line 29; Page 3, Line 30, Page 5, Line 16 of the Specification). See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

11. The drawings are objected to under 37 CFR 1.83(a) because they fail to show Fig 9(E) as described in the specification (see Page 5, Line 27 of the Specification). Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after

the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

12. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include at least the following reference character(s) not mentioned in the description: "1Lout," "OE1," "2Lout" (e.g., see Figs. 2-4), and "HVSS2" (e.g., see Fig. 4). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

13. The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the figures.

Specification

14. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

15. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

16. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

17. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter:

"transferring data of a latch result of said first latch section" (in line 2); "transferring data of only an inverted output of the latch result of said first latch section or only a non-inverted output of said latch result" (in lines 4-5); and "a period of data transfer of the latch result of said first latch section" (in line 6). For example:

The lack of a grammatical article (such as "*a*" or "*a plurality of*" or "*the*" or "*said*") preceding the "*data*" limitation(s) renders it unclear to an artisan whether the claim is establishing a new element; or instead referring back to some preestablished limitation.

For example, it would be unclear to an artisan whether a single element of "*data*" is being claimed; or rather whether a plurality of "*data*" elements are being claimed.

Moreover, it would be unclear to one having ordinary skill in the art the claimed "*period of data transfer*" is intended to refer to the "*transferring data*" (in line 2); the "*transferring data of only an inverted output*" (in line 4); or rather the "*transferring data of... only a non-inverted output*" (in line 5).

An omitted structural cooperative relationship results from the claimed subject matter: "*a data transfer circuit for latching an input data in a first latch section, transferring data of a latch result of said first latch section to a second latch section, and latching therein*" (in line 6). For example:

It would be unclear to one having ordinary skill in the art what is intended to be the subject of the term, "*therein*." The data transfer circuit, the input data, the first latch section, the data, the latch result, or the second latch section?

18. Claim 1 recites the limitation "*data transfer*" (in line 6). There is insufficient antecedent basis for this limitation in the claim. For example:

It would be unclear to one having ordinary skill in the art the claimed "*data transfer*" is intended to refer to the "*transferring data*" (in line 2); the "*transferring data of only an inverted output*" (in line 4); or rather the "*transferring data of... only a non-inverted output*" (in line 5).

Claim Rejections - 35 USC § 102

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

20. Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by the *Application's Admitted Prior Art (AAPA)*.

Regarding claim 1, the *AAPA* discloses a data transfer circuit [e.g., Fig. 2; 8] for latching [e.g., Fig. 2; via Q1-Q6] an input data [e.g., Fig. 2; D1] in a first latch section [e.g., Fig. 2; 21], transferring data [e.g., Fig. 2; 1Lout] of a latch result [e.g., Fig. 2; via 24, 25] of said first latch section to a second latch section [e.g., Fig. 2; 22], and latching [e.g., Fig. 2; via Q7-Q10] therein, characterized by: transferring data [e.g., Fig. 2; 1Lout] of only an inverted output of the latch result [e.g., Fig. 2; via 24 -- wherein transfer switch 24 never outputs a non-inverted output] of said first latch section or only a non-inverted output of said latch result [e.g., Fig. 2; via 25 -- wherein transfer switch 25 never outputs an inverted output] to said second latch section; and

at least during a period of data [e.g., Fig. 2; *1Lout*] transfer of the latch result of said first latch section to said second latch section [e.g., see Figs. 3C, 3D],

causing a power voltage of said first latch section to rise [e.g., see Figs. 3C, 3D -- wherein *1Lout* is illustrated as rising from voltage low *VSS* to high *VCC*] (e.g., see Page 3, Line 30 - Page 6, Line 25).

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

23. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by *Azami et al (US 2003/0011584 A1)* or, in the alternative, under 35 U.S.C. 103(a) as obvious over *Azami et al (US*

2003/0011584 A1) in view of *Nakajima et al (JP 2000-221926 A)* -- English translation provided.

Regarding claim 1, *Azami* discloses a data transfer circuit [e.g., Fig. 18] for latching [e.g., Fig. 18; via 1850-1856] an input data [e.g., Fig. 18; Data In] in a first latch section [e.g., Fig. 18; LAT1],

transferring data of a latch result [e.g., Fig. 18; via 1860] of said first latch section to a second latch section [e.g., Fig. 18; LAT2], and

latching [e.g., Fig. 18; via 1860-1866] therein, characterized by:

transferring data of only an inverted output of the latch result of said first latch section or only a non-inverted output of said latch result [e.g., Fig. 18; via 1860] to said second latch section; and

at least during a period of data transfer of the latch result of said first latch section to said second latch section,

causing a power voltage of said first latch section to rise [e.g., Fig. 18; when the voltage signal output by LAT1 rises from a low level to a high level -- VSS to VDD, for instance] (see the entire document, including Paragraphs 183-186).

Should it be shown that *Azami* neglects teaching "causing a power voltage of said first latch section to rise" subject matter with sufficient specificity:

Nakajima discloses a data transfer circuit [e.g., Figs. 5, 6] for latching [e.g., Fig. 5; via 31, 32, 35] an input data [e.g., Fig. 5; in1] in a first latch section [e.g., Fig. 5],

transferring data [e.g., Fig. 5; *out1*] of a latch result of said first latch section to a second latch section [e.g., Fig. 6; *via in1* -- wherein it would be obvious to an artisan to connect a latch data signal output terminal to a latch data signal input terminal, 37-to-53 for instance], and

latching [e.g., Fig. 6; *via 51, 52, 55*] therein, characterized by:

transferring data [e.g., Fig. 5; *out1*] of only an inverted output of the latch result of said first latch section or only a non-inverted output of said latch result to said second latch section; and

at least during a period of data transfer of the latch result of said first latch section to said second latch section,

causing [e.g., Fig. 5; *via 39, 40, 44, 45, oe1, oe2*] a power voltage of said first latch section to rise [e.g., Fig. 5; *from low VDD1 to high VDD2*] (see the entire document, including Paragraphs 37-45).

Azami et al (US 2003/0011584 A1) and *Nakajima* are analogous art, because they are from the shared inventive field of latch circuitry comprising CMOS inverters used in display devices.

Therefore, it would have been obvious to use *Nakajima's* dual power supply first latch section circuitry as *Azami's* first latch section; so as to reduce power consumption and the latch circuitry area.

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The documents listed on the attached '*Notice of References Cited*' are cited to further evidence the state of the art pertaining to data transfer circuits.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.